

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-169166

(43)Date of publication of application : 14.06.2002

(51)Int.Cl.

G02F 1/1339

G02F 1/1335

G02F 1/1337

G02F 1/1368

G09F 9/30

(21)Application number : 2000-369777

(71)Applicant : MATSUSHITA ELECTRIC IND CO LTD

(22)Date of filing : 05.12.2000

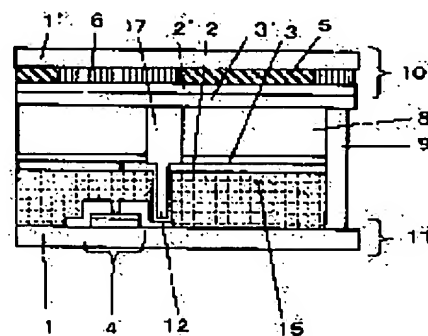
(72)Inventor : YOSHIDA MASANORI
MATSUKAWA HIDEKI

(54) LIQUID CRYSTAL DISPLAY, METHOD FOR MANUFACTURING THE SAME AND EQUIPMENT APPLYING IMAGE DISPLAY

(57)Abstract:

PROBLEM TO BE SOLVED: To suppress peeling of a columnar resin pattern and to decrease display irregularities by improving the adhesion degree of the columnar resin pattern to a substrate.

SOLUTION: In the liquid crystal display device, a resin film 15 is formed on a TFT array substrate 10 where a switching active element 4 to drive a pixel electrode is formed, and the switching active element 4 is brought into contact with a pixel electrode 2 formed on the resin film 15 through a contact hole 12, formed in the resin film 15. A columnar resin pattern 17 is formed to cover the contact hole 12 part, while the pattern fills the whole or a part of the contact hole 12, so that the columnar resin pattern 17 is formed overlapping the contact hole 12 part; and the adhesion degree of the columnar resin pattern 17 to the substrate is improved, as well as the level difference on the substrate surface is decreased, to prevent disturbance in the alignment of the liquid crystal caused by the level difference. Thus, high display quality without irregularities can be realized.



- 1. 1 ガラス基板
- 2. 2 透明電極
- 3. 3 配向膜
- 4. 4 スイッチング駆動素子
- 5. 5 カラーフィルタパターン
- 6. 6 ブラックマトリクス
- 7. 7 柱状樹脂パターン
- 8. 8 液晶
- 9. 9 シール剤
- 10. 10 カラーフィルタ基板
- 11. 11 アレイ基板
- 12. 12 コンタクトホール
- 13. 13 柱状樹脂パターン

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office